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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,111	08/10/2006	Iwo-Martin Mergler	GB040034 US	6040
65913	7550	06/26/2008		
NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131				
EXAMINER				
PAUL, DISLER				
ART UNIT		PAPER NUMBER		
2615				
NOTIFICATION DATE		DELIVERY MODE		
06/26/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

### Office Action Summary

**Application No.**

10/589,111

**Applicant(s)**

MERGLER, IWO-MARTIN

**Examiner**

DISLER PAUL

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27, 29 and 30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27, 29 and 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date 8/10/06
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

The applicant amended claim "acoustic source to combine identification signals with the input audio signal" will further over prior art.

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3,5-6,8-9,12-13,17-21,23,26-27,29-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Boyd (US 5,708,421).

Re claim 1, Boyd disclose of the audio system for use with an audio source that provides an input audio signal, the system comprising an acoustic source to combine an identification signal with the input audio signal to produce an output audio signal, the identification signal identifying the acoustic source (fig.1 wt (28,18); col.4 line 35-55; selected freq signals and other signals sent) ; the remote control device to control the acoustic source to receive the output audio signal based on the identification signal (fig.1 wt (32); col.4 line 55 - col.5 line 10).

Re claim 2, the audio system as claimed in claim 1, wherein the identification signal included within the output signal is arrange to be inaudible (col.4 line 47-55).

Re claim 3, the audio system as claimed in claim 1, wherein the input audio signal is modulated with the identification signal (fig.1 wt (18); col.4 line 30-46).

Re claim 5, the audio system as claimed in claim 1, and including circuitry to determine the distance between the audio source and the remote control device (col.6 line 40-55).

Re claim 6, the audio system as claimed in claim 5, wherein the circuitry to determine the said distance is responsive to a timed receipt of the identification signal(fig.1; col.6 line 40-45, col.5 line 6-15).

Re claim 8, the audio system as claimed in claim 6, wherein the acoustic source is arranged to produce a timing reference signal and to transmit an indication of that to the remote control unit(fig.1 wt (20); col.5 line 32-38).

Re claim 9, the audio system as claimed in claim 5, wherein said distance between the acoustic source and the remote control device is determined on the basis of the timed receipt of the audio output signal from the acoustic source at the remote control device (col.5 line 5-15; col.6 line 35-55).

Re claim 12, the audio system as claimed in claim 1, further comprising circuitry to determine the position of the remote control device relative to the acoustic source on the basis of the identification signal received at the remote control device (fig.1;

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col.3 line 35-60; col.4 line 58-64/at the receipt of the identification signal).

Re claim 13, the audio system as claimed in claim 12, wherein the acoustic source is arranged to provide a plurality of output channels, wherein a different identification signal is associated with the audio signal output from each channel (col.7 line 25-32).

Re claim 17, the audio system as claimed in claim 1, wherein the acoustic source is arranged such that the identification signal is included within the output audio signal and with a relatively high carrier frequency (col.4 line 47-64).

Re claim 18, the audio system as claimed in claim 17, wherein the carrier frequency comprises at least a low ultrasound frequency (see claim 17 rejection).

Re claim 19, the method of controlling an acoustic source arrange for outputting an audio signal, the method comprising: combining an identification signal with an input audio signal to produce output , the identification signal identifying the acoustic source(fig.1 wt (28,18,32); col.4 line 35-55; selected freq signals and other signals sent); and receiving at a remote control arrange for control of the

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acoustic source (fig.1 wt (32); col.4 line 55 & col.5 line 10), the output audio signal processing the receive output audio signal to identify the acoustic source based on the identification signal and transmitting a control signal form the remote control device to the identified acoustic source (col.5 line 5-15; fig.1 wt (40,48)).

Re claims 20-21, 23, 26 have been analyzed and rejected with respect to claims 2-3,5,12 respectively.

Re claims 27 has been analyzed and rejected with respect to claim 1.

Re claim 29 has been analyzed and rejected with respect to claim 19.

Re claim 30, a remote control device for controlling an audio signal output by an acoustic source and arrange for use in an audio system as claimed in claim 1. (fig.1 wt (12,28); col.5 line 5-15).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 10-11,14-16,24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyd (US 5,708,421) and further in view of Shiraishi (US 6,954,538 B2).

Re claim 10, the audio system as claimed in claim 1 with signal control at speaker (fig.1 wt (28)), However, Boyd fail to disclose of the wherein the remote control unit is arranged to transmit a controlling signal to the acoustic source serving to control the volume of the output audio signal in a manner responsive to a change in distance of the remote control device from the acoustic source. However, Shirai et al. disclose of a system wherein the remote control unit is arranged to transmit a controlling signal to the acoustic source serving to control the volume of the output audio signal in a manner responsive to a change in distance of the remote control device from the acoustic source (col.6 line 50-65) for the purpose of having constant sound volume dependent on the user location. Thus, taking the combined teaching of Boyd and Shirai as a whole, it would have been obvious for one of the ordinary skill in the art at the time of the invention to have modify Boyd with the remote control unit is arranged to transmit a controlling signal to the acoustic source serving to control the volume of the output audio signal in a manner responsive to a change in distance of the remote control device from the acoustic source for the purpose of having constant sound volume dependent on the user location.



Re claim 11, the audio system as claimed in claim 10 with change of distance determined, However, the combined teaching of Boyd and Shirai as a whole, fail to disclose of the wherein the change in distance is determined on the basis of a change in magnitude of an audio of the output audio signal as received by the remote control device (Shirai, col.6 line 45-54; col.5 line 55-65/based on the frequency magnate detected in remote controls).

Re claim 14, the audio system as claimed in claim 13 with the output signal sent to the audio source by the controller and determining the position of the remote control (fig.1; col.5 line 35-42; col.7 line 53-57), However, Boyd fail to disclose of the wherein the remote control device is arranged to transmit a signal to the audio acoustic source serving to vary the output from at least one of the said channels in response to the determined position of the remote control device relative to the acoustic source. But, Shiraishi did disclose of the wherein the remote control device is arranged to transmit a signal to the audio acoustic source serving to vary the output from at least one of the said channels in response to the determined position of the remote control device relative to the acoustic source (col.5 line 45-52; col.6 line 35-41; col.55-67) for purpose of having constant sound volume dependent on the user location. Thus, taking the combined teaching of Boyd and Shiraishi as whole, it would have been obvious for one of the ordinary skill in the art to have modify Boyd with the remote control device is arranged to transmit a signal to the audio

acoustic source serving to vary the output from at least one of the said channels in response to the determined position of the remote control device relative to the acoustic source for purpose of having constant sound volume dependent on the user location.

Re claim 15, the audio system as claimed in claim 13, wherein the remote control device is arranged to transmit a signal to the acoustic source serving to vary the output from at least one of the said channels in response to a change in position of the remote control device relative to the acoustic source (see claim 14 rejection).

Re claim 16, the audio system as claimed in claim 15, further comprising a plurality of acoustic sources arranged to be located in a spaced relationship and circuitry to hand-over the audio signal output there-between responsive to a control signal from the remote control device (fig.1 wt (201-206,300)), the remote control device being arranged to generate the control signal responsive to determination of the change in location of the remote control device relative to the said plurality of acoustic sources (fig.1 wt (300); col.4 line 25-45).

Re claims 24-25 have been analyzed and rejected with respect to claims 10-11 respectively.

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Re claim 7, the audio system as claimed in claim 6 with timing reference at acoustic source (fig.1 (20)), However, Boyd fail to disclose of the having the remote control device with generating the time reference signal to acoustic source. However, official notice is taken the concept of having another device with including the remote to generate a timing reference signal and transmit the timing reference signal to the acoustic source is commonly known in the art, thus it would have been obvious for one of the ordinary skill in the art to have modify Boyd with the remote control device with generating the time reference signal to acoustic source for determining the distance between the acoustic source and the remote control.

5. Claims 4, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyd (US 5,708,421) and further in view of Steeger (US 5,012,520).

Re claim 4, Boyd disclose of the audio system as claimed in claim 1 with the identification signal, however, Boyd fail to disclose of the wherein the identification signal comprises a pseudo random noise signal. But, Steeger disclose of a system wherein the similar concept wherein the identification signal comprises a sequence marking (col.4 line 20-27) for purpose of sending inconspicuous sound to be identified by an audio component. Thus, taking the combined teaching of Boyd and Steeger as a whole, it would have been obvious for one of the ordinary skill in the art to have modify Boy with the identification signal comprises any identifying sequence marking for

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the purpose for purpose of sending inconspicuous sound to be identified by an audio component.

Re claim 22 has been analyzed and rejected with respect to claim 4.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DISLER PAUL whose telephone number is (571)270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. P./

Examiner, Art Unit 2615

/Vivian Chin/

Supervisory Patent Examiner, Art Unit 2615

